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CHESTERFIELD COUNTY
P.O. Box 40
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LANE B. RAMSEY
COUNTY ADMINISTRATOR

MEMORANDUM:

TO: Members of the Chesterfield County Planning Commission

FROM: Thomas E. Jacobson, Director of Planning *Tom*

DATE: May 2, 2003

SUBJECT: Planning Commission Recommendation at May 20, 2003 Work Session
Proposed Amendments to Zoning Ordinance Landscape Requirements

At the request of the Planning Commission, staff has prepared responses to concerns about four (4) amendments discussed at the March 18, 2003 Public Hearing. These amendments are addressed in the same order as listed in the draft Ordinance Amendment presented in the public hearing and included herein.

13. Add requirement for form of surety at 50% of initial cost for replanting after one year. (Sec. 19-518 f – Page 7)
14. Provide certification program for landscape contractors that would eliminate the need for the developer to bond for landscape planting requirements. (Sec. 19-518.f.5 – Page 7)
19. Added requirement for landscaping and aesthetic treatment of BMP's visible to the public. (Sec. 19-518 h – Page 11)
23. Allow certain types of stormwater management facilities in buffers (Sec. 19-521 g – Page 13)

These four amendments are addressed in order in the following five pages. The last concern expressed was for a clarification of buffer easements being recorded with electronic submission of plans to the County. This change is shown on page 13 in Sec. 19-521.c. Staff recommends approval of the proposed amendments to the Zoning Ordinance.

Replacement of Required Landscaping in Chesterfield County

Amendments 13 (Bonding of Landscaping) and 14 (Alternative to Bonding Landscaping)

Issue: The County has no program to insure the replacement of required trees and shrubs that are dying, dead, or missing at newly developed sites. This promotes an inconsistent appearance along our highway corridors, minimizes the desire by property owners to maintain landscaping, and promotes the removal of landscaping by those who do not want landscaping.

Options: Each option requires a one-year site inspection by the Planning Department to identify what needs replacing. The options to guarantee replanting are as follows:

- a. Current method is to notify property owner that a violation exists that must be resolved to avoid court summons (Code Enforcement). This process is slow and does not promote goodwill between the County and the business community.
- b. First proposed method is to require a landscape replacement bond valued at fifty (50) percent of the original installation cost. This may be difficult in some situations for those who cannot obtain a bond.
- c. Second proposed method proposes an alternative to a bond. The County Attorney's office will work with Planning Dept. staff to set up a program in lieu of a bond, to ensure the replacement of landscaping after the one-year inspection.
- d. Another alternative proposes removing the requirement for a bond for very small projects. Any project that requires a landscape materials cost of one thousand dollars (\$1000.00) or less shall not be required to post a landscape replacement bond.

Staff recommends only options "b" and "c" as two valid means to assure establishment of landscaping in the County. Option "d" does not address replacement of landscaping, but it may assist some small developer (church or small business) who finds it difficult to obtain a bond. The mechanics of Option "c" will be set up administratively given the language proposed in the Ordinance. Option "c" would change draft Ordinance Sec. 19-518.(f)(5) to read as follows:

The County may, at its discretion, establish a program in lieu of a replacement bond to ensure that all plants identified for replacement by the County's one-year inspection have been replaced.

Option "d" would change draft Ordinance Sec. 19-518.(f)(4) to read:

"A form of surety shall also be provided in an amount equal to fifty percent of the installation cost to cover replacement of landscaping identified by the one-year inspection by the planning department of all unhealthy, dying, or dead plant materials or pollarded trees, and which shall be replaced during the next planting season. If a form of surety is provided for landscaping prior to the initial site landscaping, the surety may also state replacement landscaping is covered as noted above. Any project that requires a landscape materials cost of one thousand dollars (\$1000.00) or less shall not be required to post a landscape replacement bond."

Fencing of Publicly Visible BMP's and Basins in Chesterfield County
Amendment 19 (Aesthetic Treatment of Basins)

Issue: From concern expressed in March 18, 2003 Public Hearing, amendment 19 stated:

19. Added requirement for landscaping and aesthetic treatment of BMP's visible to the public. However, requirement not to interfere with basin design, access, and maintenance. (Sec. 19-518 h – Page 11)

The concern here is the requirement for decorative fencing to replace chain link fencing around ponds that are visible to the public and that are required to be fenced for safety. Specifically, the cost of decorative fencing may be prohibitive. Staff contacted a local fence company and received the following information:

- A six (6) feet tall chain link fence costs \$7-9.00 per linear foot with the higher cost including vinyl cladding.
- A four (4) feet tall, white, 4 rail PVC fence costs \$10.00 per linear foot
- A four (4) feet tall painted aluminum picket fence costs \$23.00 per linear foot

Staff believes that the four (4) feet tall, white, 4 rail PVC fence is not a significant increase in cost over the cost of chain link. See the photograph below and on the next page of the large basins at Commonwealth Center Shopping Center as an example of using this PVC fencing. Staff also recognizes the higher cost of the painted aluminum fencing. In smaller applications, as is shown in the photograph on the next page of Chesterfield Marketplace Shopping Center, developers have chosen this fencing as a better fit for tighter, urban spaces.

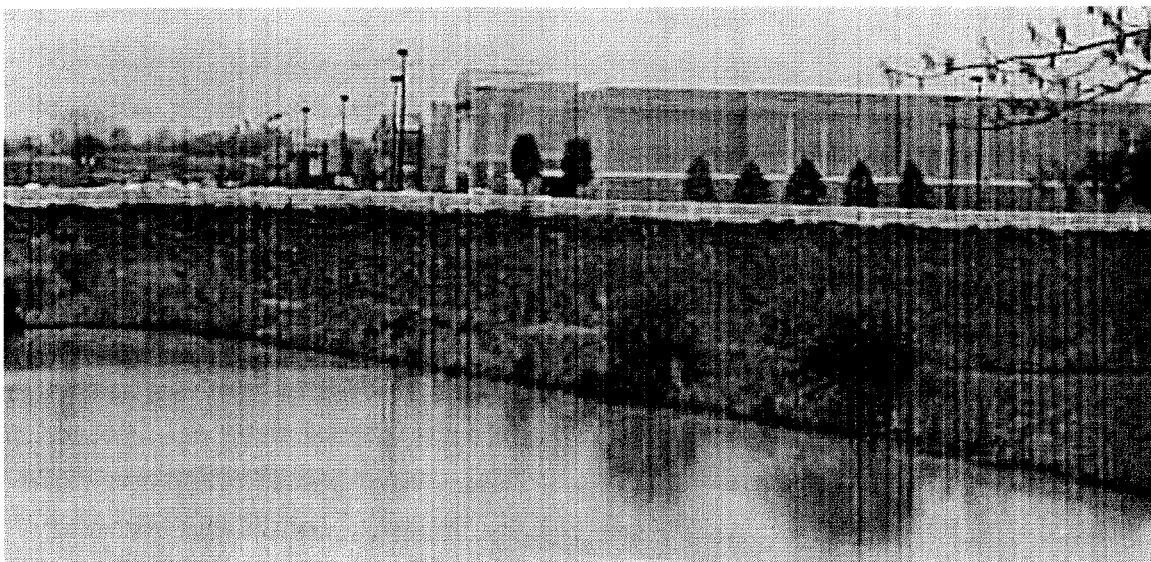


Photo: Four feet high, four rail PVC fence used around basins at Commonwealth Center

Photo: Close-up of 4 ft high, 4 rail PVC fence around basins at Commonwealth Center

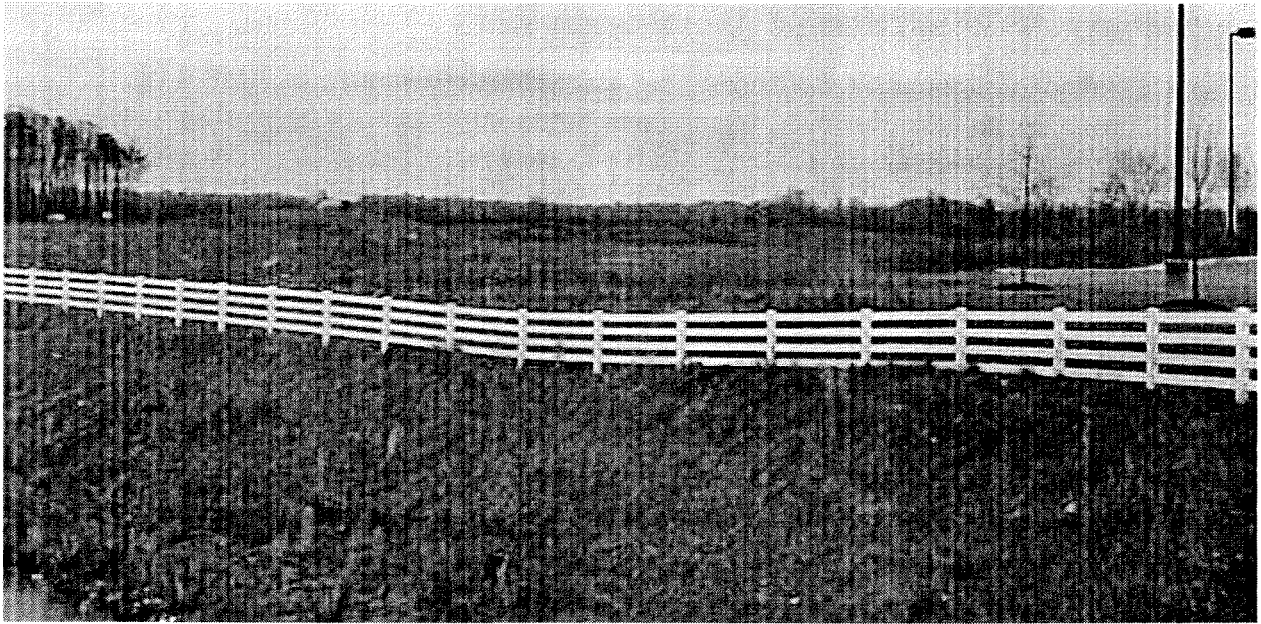
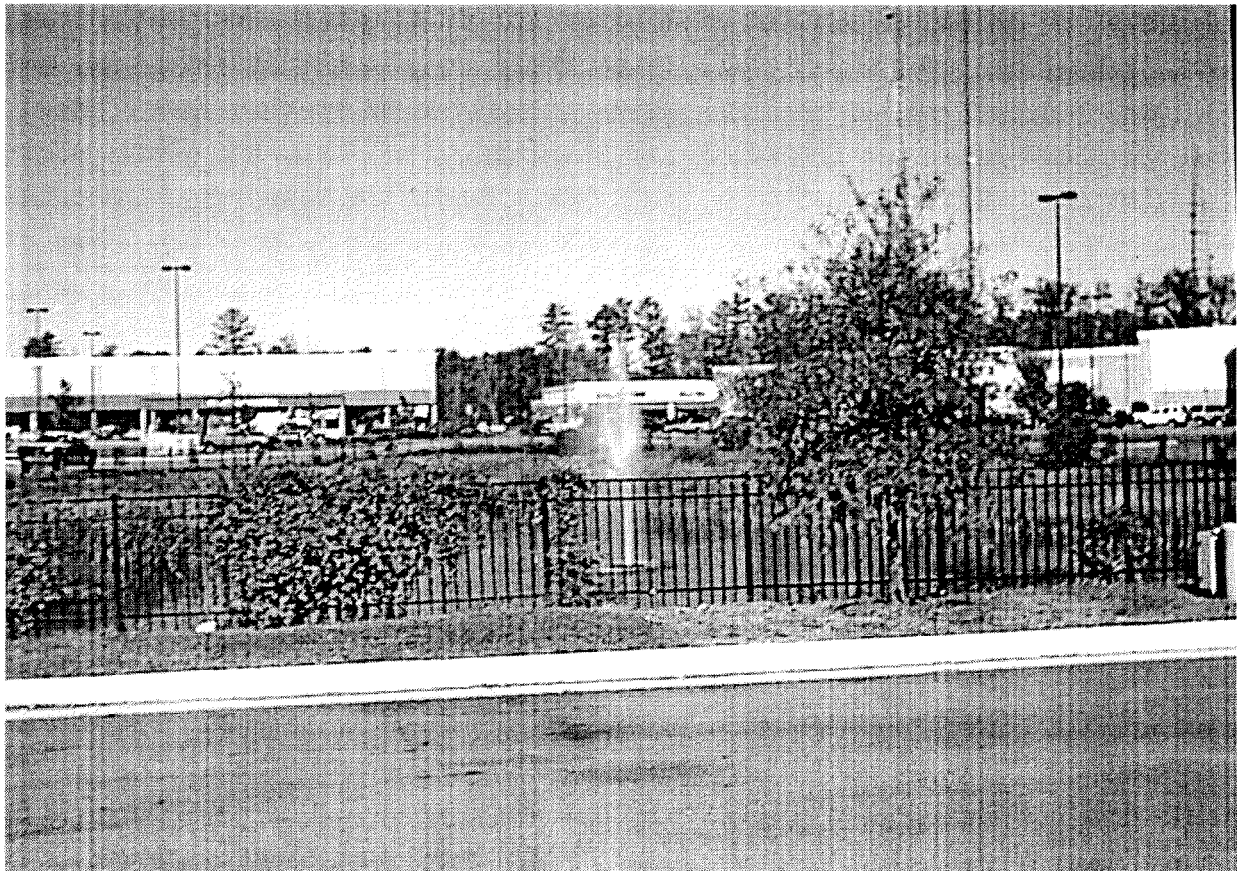


Photo: Chesterfield Marketplace Shopping Center: Example of 4 ft. tall painted aluminum decorative fence



Allow Portions of Stormwater Management Basins into Buffers

Amendment 23

Issue: From concern expressed in March 18, 2003 Public Hearing, amendment 23 stated:

23. Allow certain types of stormwater management facilities in buffers (Sec. 19-521 g – Page 13)

The concern is about portions of stormwater management basins that do not disturb existing topography or vegetation within a buffer

The proposed Ordinance language in Sec. 19-521 (g) specifically states:

“The only uses permitted by right in buffers shall be landscaping and screening as permitted herein; however, signs; security fencing; utilities which run generally perpendicular through the buffer; pedestrian walkways; portions of stormwater management basins that do not disturb existing topography or vegetation within the buffer, and Best Management Practice bio-retention basins in buffers without existing vegetation.~~or~~ Similar uses may be permitted through subdivision, site or schematic plan review, provided that the uses are consistent with the purposes stated in § 19-520 are maintained”.

Given that staff does not have specific examples where basins have been allowed to back up stormwater into buffer areas, or have bio-retention basins planted in unforested buffer areas, staff believes it may be appropriate to have any first examples of these situations be handled through a site plan that includes review by the Planning Commission.

The final draft amendment still includes a clarification that the uses allowed in the buffer are consistent with the purposes stated in § 19-520, and reads as follows:

“The only uses permitted by right in buffers shall be landscaping and screening as permitted herein; however, signs; security fencing; utilities which run generally perpendicular through the buffer; pedestrian walkways;.or similar uses may be permitted through subdivision, site or schematic plan review, provided that the uses are consistent with the purposes stated in § 19-520 are maintained”.

PRIMARY AMENDMENTS TO LANDSCAPE REQUIREMENTS OF THE CHESTERFIELD COUNTY ZONING ORDINANCE

Listed in the order found in the draft Ordinance dated 2/10/03:

1. Add requirement for street trees in residential townhouse developments (Sec. 19-105 – Page 1)
2. Add Perimeter landscaping C requirement around outside perimeter of multi-family projects, and add parking lot trees in parking lots. (Sec. 19-111 – Page 1)
3. Recommend landscape plans be prepared by state registered landscape architects, nurserymen, or landscape designers. (Sec. 19-264 – Page 3)
4. Add setback exchange along Routes 360 and 10 where setbacks are measured from the old 160 feet wide right of way. Setback exchange is for increased front yard setback and decreased side and rear yard setbacks at a ratio of 1 square foot in the front to 1.1 square feet in sides and rear. (Sec. 19-505 e – Page 4)
5. With final site plan approval, at least a conceptual landscaping plan shall be approved (Sec. 19-517 – Page 5)
6. Types of plant materials are defined, and sizes are generally reduced (Sec. 19-518 – Page 5)
7. Clarify that tree preservation is required within the public road setback and required buffers whether the parcel is developed or undeveloped (Sec. 19-518 d – Page 6)
8. Specify that all trees in tree save areas shall be retained, not just 8 inch caliper and larger (Sec. 19-518 d – Page 6)
9. Change language to require a replanting requirement of two trees (instead of one) for each tree removed without written permission from a front setback or buffer. (Sec. 19-518 d – Page 6)
10. Add language that protects development community: (1) from tree save areas with overly dense vegetation, (2) by establishing specific criteria for grading near trees, and (3) by insuring tree protection limits do not extend beyond setback limits. (Sec. 19-518 d – Page 6)
11. Added some design options that would reduce or remove requirements for water availability to plants. (Sec. 19-518 e – Page 7)
12. Add requirement for re-inspection of landscaping prior to end of one year after completion of landscaping. (Sec. 19-518 e – Page 7)
13. Add requirement for form of surety at 50% of initial cost for replanting after one year. (Sec. 19-518 f – Page 7)
14. Provide certification program for landscape contractors that would eliminate the need for the developer to bond for landscape planting replacements. (Sec. 19-518.f.5– Page 7)
15. Changed Perimeter landscaping B – Option II to reduce screening effect of berm along public roads and use large deciduous trees instead of small deciduous trees. If overhead utilities conflict, trees go behind setback in parking areas but are allowed to be counted as parking lot trees also. (Sec. 19-518 g – Page 8)

16. Changed Perimeter landscaping B side and rear yard planting requirements to a row of large maturing deciduous trees and evergreen hedgerows beside parking areas (Sec. 19-518 g – Page 8)
17. Changed Perimeter landscaping C – Option II to reduce screening effect of berm along public. If overhead utilities conflict, trees go behind setback in parking areas but are allowed to be counted as parking lot trees also. (Sec. 19-518 g – Page 9)
18. Added Perimeter landscaping J that will be used in Post Development Areas adjacent to public roads. Uses only large deciduous trees with double staggered hedgerow of medium shrubs adjacent to parking areas. The director of planning has authority to consider alternate designs under certain criteria. (Sec. 19-518 g – Page 10)
19. Added requirement for landscaping and aesthetic treatment of BMP's visible to the public. However, requirement not to interfere with basin design, access, or maintenance. (Sec. 19-518 h – Page 11)
20. Add more tree planting area in parking lots, base island size on tree size, and promote more trees in continuous planting islands versus single islands. (Sec. 19-519 a – Page 12)
21. Promote BMP bio-retention basins in parking lot islands. Credit vegetation for parking lot trees. (Sec. 19-519 c – Page 12)
22. Allow split zoned property to have buffers on residential zoned portion of split zoned property. (Sec. 19-521 c – Page 13)
23. Allow certain types of stormwater management facilities in buffers. (Sec. 19-521 g – Page 13)
24. Allow up to 50% of small maturing tree plantings in buffers to be changed to evergreen trees at request of adjacent property owners. (Sec. 19-522 – Page 14)
25. Add buffer protection to O, C and I zoned properties with a primary use that is single family residential subdivision. (Sec. 19-523 – Page 14)
26. Re-establish some minimum tree plantings adjacent to the Jefferson Davis Highway Corridor. (Secs. 19-582 through 584 – Pages 15-17)
27. Revise the planting requirements for front setbacks in Post Development Areas from a suburban landscape concept to an urban street tree concept. (Sec. 19-602 – Page 17)

AN ORDINANCE TO AMEND THE CODE OF THE COUNTY
OF CHESTERFIELD, 1997, AS AMENDED BY REPEALING SECTION 19-225
AND AMENDING AND RE-ENACTING SECTIONS 19-105, 19-111, 19-264, 19-505, 19-516,
19-517, 19-518, 19-519, 19-520, 19-521, 19-522, 19-523, 19-582, 19-583, 19-584,
19-593, 19-601 AND 19-602 RELATING TO LANDSCAPING

BE IT ORDAINED by the Board of Supervisors of Chesterfield County:

(1) *That Section 19-225 of the Code of the County of Chesterfield, 1997, as amended, is repealed and Sections 19-105, 19-111, 19-264, 19-505, 19-516, 19-517, 19-518, 19-519, 19-520, 19-521, 19-522, 19-523, 19-582, 19-583, 19-584, 19-593, 19-601 and 19-602 are amended and re-enacted to read as follows:*

Sec. 19-105. Required conditions.

The purpose and goal of the following conditions is to create developments that protect against overcrowding, undue density of population, obstruction of light and air and that are attractive, convenient and harmonious. To this end, buildings should be designed to impart harmonious proportions and to avoid monotonous facades or large bulky masses. Townhouse buildings should possess architectural variety but enhance an overall cohesive residential character. Character should be achieved through the creative use of design elements such as balconies and/or terraces, articulation of doors and windows, sculptural or textural relief of facades, architectural ornamentation, varied rooflines or other appurtenances such as lighting fixtures and/or planting. Townhouse rows of more than six units shall be clustered and employ sufficient variety of setbacks between units to avoid monotonous facades and bulky masses.

The conditions specified in this section shall be met in the R-TH District, except as noted in section 19-106:

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- (1) *Frontage on public street.* All lots shall have frontage on a public street, or access thereto by common right-of-way within 500 feet. Townhouse lots not fronting on a public street shall front on paved accessways designed and constructed in accordance with VDOT paving specifications for subdivisions and secondary roads. All public and private streets within an R-TH project shall install street trees in conformance with Sec. 19-518(h) Street trees.

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Sec. 19-111. Required conditions.

The purpose and goal of the following conditions is to create a development which protects against overcrowding, undue density of population, obstruction of light and air, and which is attractive, convenient and harmonious. To this end, buildings should be designed to impart harmonious proportions and to avoid monotonous facades or large bulky masses. Buildings should possess architectural variety but enhance an overall cohesive residential character.

Character shall be achieved through the creative use of design elements such as balconies and/or terraces, articulation of doors and windows, sculptural or textural relief of facades, architectural ornamentation, varied roof lines or other appurtenances such as lighting fixtures and/or planting.

The conditions specified in this section shall be met in the R-MF District except as specified in section 19-112.

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- (d) *Setbacks from roads and property lines.* All structures shall be set back a minimum of 25 feet from interior private driveways. If the structure is 48 feet or more in height, the setback may be reduced to 20 feet where adjacent to a fire lane. Structures shall be set back at least 15 feet from any parking space and at least 50 feet from any proposed right-of-way. All structures shall be set back a minimum of 50 feet from all property lines, unless adjacent to another multifamily residential district, in which case a minimum setback of 30 feet shall be maintained. All perimeter yards shall be planted per the requirements of Perimeter landscaping C. Apartment buildings constructed along an adjacent or internal public road shall front that road.

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- (g) *Driveways and parking areas.* All roads, driveways and parking areas shall have concrete curbs and gutters, and the requirements for surface parking area landscaping per Section 19-519 shall be met. All private driveways and parking areas shall be at least 15 feet from the right-of-way of any existing or proposed public road except for those roads indicated on the comprehensive plan as major arterials, where the setback shall be increased to 50 feet. In all cases, these setbacks are subject to the provisions of section 19-555 of the Development Standards Manual.

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DIVISION 2. ~~BUFFER AND SCREEN MODIFICATIONS~~ RESERVED

Sec. 19-225. ~~Waiver or modification of buffer and screening standards.~~ Reserved.

~~(a) Except for buffers required by the board of supervisors or by the board of zoning appeals, any buffer and screening requirements may be waived and/or modified by the planning commission during schematic or site plan review and approval under any of the following circumstances:~~

- ~~(1) If the strict application of the buffer or screening requirement reduces the usable area of a lot, due to lot configuration or size, to a point that would preclude a reasonable use of the lot, then buffer and/or screening requirements may be waived or modified during the site plan process, provided the side or rear of a building, a barrier and/or the land between that building and the property line, has~~

~~been specifically designed to minimize adverse impact through a combination of architectural and landscaping techniques.~~

- ~~(2) If the building, a barrier and/or the land between that building and the property line has been specifically designed to minimize adverse impact through a combination of architectural and landscaping techniques.~~
- ~~(3) If the adjoining land is designated in the comprehensive plan for a use that would not require buffers or screens.~~
- ~~(4) If the adjoining property is used for any public purpose other than a school, day care center or hospital.~~
- ~~(5) If the adjacent lot is in an R, R-TH, R-MF or A District and is used for a compatible use permitted by a special exception or a conditional use.~~
- ~~(6) If the topography is such that the buffer and screening requirements would not be effective or if topographic differences minimize adverse impacts without additional improvements.~~
- ~~(7) If the buffers or screens are to be between uses to be developed under a common development plan.~~
- ~~(8) If the adjacent lot is zoned R, R-TH, R-MF or A and is undevelopable for residential uses because it is a resource protection area.~~

~~(b) Except for buffers required by the board of supervisors or by the board of zoning appeals, the buffer and screening requirements may be waived and/or modified during the site plan process under any of the following circumstances:~~

- ~~(1) When the adjacent lot is in an R, R-TH or R-MF District and is occupied by a nonresidential use. If the adjacent lot is vacant, its use shall be considered residential unless the comprehensive plan designates it for nonresidential use.~~
- ~~(2) When the parcel is located within the Chester Village Area, adjacent property is not designated by the comprehensive plan for single-family land uses and the Chester Village requirements of section 19-609 of the Development Standards Manual have been met.~~

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Sec. 19-264. Preparation and submission of site plans.

~~(a) Site plans, or any portion thereof except landscape plans, involving engineering, landscape architecture, architecture or land surveying, shall be prepared or certified respectively by a state registered engineer, landscape architect, architect or land surveyor as allowed by state~~

code. Landscape plans shall be prepared by a state registered landscape architect, nurseryman, or landscape designer.

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Sec. 19-505. Measurement of yards.

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(e) For purposes of determining yard setbacks, the setback shall be measured from a 160-foot right-of-way in those instances where 200-foot right-of-way has been dedicated to the county in the following locations:

- (1) Route 360, from Route 288 to the Amelia County line;
- (2) Route 10:
 - a. From Irongate Drive to Courthouse Road;
 - b. From Krause Road to Buckingham Street;
 - c. From I-95 to Hopewell corporate limits.

Buildings, drives and parking within office, commercial and industrial districts:

The minimum setback area for buildings, drives and parking areas along Route 360 and Route 10 as listed in this Section, located outside of buffers, floodplains, wetlands and RPAs shall be increased 1 square foot for each 1.1 square feet of minimum required side and rear yard area located outside of buffers, floodplains, wetlands and RPAs, so as to increase the minimum setback along these roads an additional 20 feet. Provided, however, the setback along these roads need not be increased by more than 90 percent of the amount of reducible side and rear yard area outside of buffers, floodplains, wetlands and RPAs. Side and rear yard setback area outside of buffers, floodplains, wetlands and RPAs may be reduced at a ratio of 1.1 square feet for each.

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Subdivision III. Landscaping

Secs. 19-516. Purpose and intent--Landscaping.

A comprehensive landscaping program for each individual lot or parcel is essential for the visual enhancement of the county and to protect and promote the appearance, character and economic values of land. Whenever possible, maintenance of the existing topography is encouraged. The purpose and intent of such landscaping requirements is also to: (i) reduce the ~~visibility~~ visual impact of paved areas from adjacent properties and streets, (ii) moderate climatic effects, (iii) minimize noise and glare, (iv) enhance public safety by defining spaces to influence traffic movement, (v) reduce the amount of stormwater runoff, ~~and~~ (vi) provide transition between neighboring properties, and (vii) promote environmental stewardship.

Secs. 19-517. Landscaping plan and planting requirements.

(a) A At a minimum, a conceptual landscaping plan shall be submitted in conjunction with final site plan review approval. A detailed landscape plan must be submitted and approved prior to the release of a temporary certificate of occupancy.

(b) The landscaping plan shall be drawn to scale, shall include dimensions and distances, and shall delineate all existing and proposed parking spaces or other vehicle areas, access aisles, driveways and the location, size and description of all landscaping materials. If a conceptual landscape plan is submitted for site plan approval, the plan shall show all site improvements including easements and rights of way, fire hydrant locations, and a conceptual site lighting layout if site is to be lit, and be drawn to scale. The plan shall include dimensions and distances of perimeter yards and buffers and related landscape requirements for each yard or buffer, interior parking lot areas, BMP areas, and other landscape requirements, and show general layout of existing and proposed trees and shrubs, designating them as large or small deciduous trees, evergreen trees, medium shrubs, and small shrubs/groundcovers. When a detailed landscape plan is submitted, all information required on the conceptual plan shall be shown, but specific plant species shall be shown for each of the general plant types, plant sizes shall be specified, and any details, notes, and any plan specific requirements shall be included. Plans submitted prior to land disturbance may be re-evaluated after completion of grading to determine quality of remaining trees, changes to slopes and/or drainage, or other issues that may affect the landscape design. If such a re-evaluation requires revisions to the approved landscape plan, a review fee shall not be applied.

Secs. 19-518. Plant material specifications.

(a) *Quality:* All plant materials shall be alive and in a healthy condition. Plant materials shall conform to the standards of the most recent edition of the "American Standard for Nursery Stock," published by the American Association of Nurserymen.

(b) *Minimum size standards:*

(1) *Small deciduous trees:* Small deciduous trees shall be of a species ~~having an average that reach~~ a minimum mature crown spread of greater than 12 feet ~~within 10 years~~. At the time of planting, a minimum caliper of at least two and one-half inches shall be required. If a native species is selected from the Chesterfield County Plant Materials List, the minimum caliper shall be reduced to two inches. Multi-stem plants shall be a minimum of 8 feet tall.

(2) *Large deciduous trees:* Large deciduous trees shall be of a species ~~having an average that reach~~ a minimum mature crown spread of greater than 30 feet ~~within 20 years~~. At the time of planting, a minimum caliper of at least ~~three~~ two and one-half inches shall be required. If a native species is selected from the Chesterfield County Plant Materials List, the minimum caliper shall be reduced to two inches. Multi-stem plants shall be a minimum of 10 feet tall.

(3) *Evergreen trees:* Evergreen trees shall be of a species that will reach a minimum height of 18 feet within 20 years. At the time of planting, A a minimum height of

five seven feet at the time of planting shall be required. If a native species is selected from the Chesterfield County Plant Materials List, the minimum height shall be reduced to six feet.

- (4) *Medium shrubs:* Medium shrubs shall be of a species that reach a minimum height of 3 feet in 5 years. A minimum height of two feet eighteen inches shall be required at the time of planting.

(c) *Landscaping design:* Generally, planting required by this subdivision should be in an irregular line and spaced at random, except where otherwise indicated in any applicable, officially adopted plans and guidelines for landscaping. Clustering of plants and tree species shall be required to provide a professionally acceptable composition and mix of vegetation. Decorative walls and fences may be integrated into any landscaping program. The use of such walls or fences, having a minimum height of three feet, may reduce the amount of required plant materials as determined at the time of site or schematic plan approval.

(d) *Tree preservation:* Whether parcels are developed or undeveloped, Ppreservation of existing trees and shrubs within required setbacks along public roads and required buffers shall be maximized to provide continuity and improved buffering and to minimize new landscaping that needs watering. Except when necessary to provide access, any All trees that are eight inches or greater in caliper, located within the setback from a public right-of-way, shall be retained unless removal is necessary to accommodate vehicular access and/or utilities that run generally perpendicular through the setback, and which is approved through site, subdivision or schematic plan review with exact locations of access and utilities determined by the director of planning. Existing trees may have lower branches removed up to one third of the current height of each tree to provide visibility into the site. Any healthy existing tree or shrub may be included for credit towards this subdivision's requirements as long as credited existing vegetation is reasonably distributed throughout the length of the setback area. If any preserved tree or shrub that has been credited dies within three years of construction, one tree or shrub shall be planted for each tree or shrub lost. The removal of existing trees in required setbacks from public roads and buffers without written approval from the Planning Department shall result in two trees or shrubs being planted for each tree or shrub removed. All existing vegetation which is to be preserved on the site shall be shown on the required landscaping plan and grading and erosion control plans, or when there are groups of trees or shrubs, such groups may be outlined. Any existing trees to be removed shall be clearly delineated on the landscaping plan and grading and erosion control plan. Existing tree groups that are too dense to support healthy forest growth or setbacks that include diseased or dying trees shall be evaluated by the planning department at the request of the owner for trees that can be approved for removal. Land disturbance other than for access or utilities is allowed in setbacks along public rights-of-way, as long as the land disturbance is no closer to existing trees than is established by one foot of radius for a root protection zone for each inch of trunk diameter measured at four and one half feet above grade (dbh-diameter at breast height). However, under no circumstances shall the root protection zone be required to extend beyond the setback limits. All limits of land disturbance and tree protection around and in the setback shall be clearly documented on the landscape, grading and erosion control plans.

(e) *Maintenance:* The owner or his agent shall be responsible for the maintenance, repair and replacement of all required landscaping materials. All plant material shall be tended and maintained in a healthy growing condition and free from refuse and debris at all times. ~~All unhealthy, dying or dead plant materials shall be replaced during the next planting season.~~ All landscaped areas shall be provided with a readily available water supply; except that in I-2 or I-3 districts, a readily available water supply shall only be required in the setback along any public right-of-way, which accommodates or is intended to accommodate through traffic. Any of the following options may be used to eliminate part or all of the requirement for water availability to plant materials: (1) using plants specified as having a low water need in the Chesterfield County Plant Materials List, (2) plants located in stormwater management or BMP facilities, and/or (3) provide a continuous maintenance, watering, and replacement program for plant materials with a reputable landscape maintenance company for a minimum of three years. Prior to the end of a year after completion of landscaping, each site shall be inspected by the planning department to verify that existing and/or new landscaping is in a healthy growing condition. All unhealthy, dying or dead plant materials or pollarded trees shall be replaced during the next planting season.

(f) *Installation and bonding requirements:*

- (1) All landscaping shall be installed in accordance with professionally accepted landscaping practices and procedures. Landscaped areas shall require protection from vehicular encroachment by such means as, but not limited to, wheel stops, concrete or bituminous curbs.
- (2) When landscaping is required, no certificate of occupancy shall be issued until the required landscaping is completed in accordance with the approved landscaping plan. When the occupancy of a structure is desired prior to the completion of the required landscaping, a temporary certificate of occupancy may be issued only if the owner or developer provides a form of surety satisfactory to the director of planning in an amount equal to the costs of completing the required landscaping.
- (3) All required landscaping shall be installed and approved by the first planting season following issuance of a temporary certificate of occupancy or the surety described above may be forfeited to the county. This requirement shall not preclude the phasing of landscaping programs for larger development projects, the timing of which shall be approved by the director of planning.
- (4) A form of surety shall also be provided in an amount equal to fifty percent of the installation cost to cover replacement of landscaping identified by the one year inspection by the planning department of all unhealthy, dying or dead plant materials or pollarded trees, and which shall be replaced during the next planting season. If a form of surety is provided for landscaping prior to the initial site landscaping, the surety may also state replacement landscaping is covered as noted above.
- (5) The County may, at its discretion, establish a certification program for landscape contractors who are able to provide a full warranty, regardless of weather, pest, or maintenance problems, to install all plants identified for replacement by the

County's one year inspection. Project owners who use a landscape contractor certified under such a program shall be relieved of having to provide a replacement bond prior to final occupancy.

(g) *Perimeter landscaping*: Landscaping shall be required at the outer boundaries of projects and in the required yards of a lot, parcel or development, except when driveways or other openings may be required. There shall be different landscaping requirements in yards and parking areas, as identified herein and in the particular districts, which shall be provided as follows:

(1) *Perimeter landscaping A*:

- a. At least one small deciduous tree for each 50 lineal feet and at least one evergreen tree for each 50 lineal feet;
- b. At least one medium shrub for each 20 lineal feet; and
- c. Low shrubs and ground cover used appropriately in tree and/or shrub beds reasonably dispersed throughout.

(2) *Perimeter landscaping B (option I)*:

- a. At least one large deciduous tree for each 50 lineal feet and at least one evergreen tree for each 30 lineal feet;
- b. At least one small deciduous tree for each 50 lineal feet;
- c. At least one medium shrub for each 15 lineal feet; and
- d. Low shrubs and ground cover used appropriately in tree and/or shrub beds reasonably dispersed throughout.

(3) *Perimeter landscaping B (option II)*:

- a. Adjacent to a public road: A minimum An average three-foot high undulating berm with 3:1 maximum side slopes designed to provide topographical interest yet maintain reasonable visibility into parking areas; and installation of Perimeter Landscape B minus small deciduous trees. If overhead utility lines conflict with large deciduous trees, planting areas or islands shall be installed adjacent to the setback with a minimum size of 300 square feet per required tree. In this case, each tree may also be credited towards the surface parking lot tree requirements.; and
- b. Perimeter landscaping A. In side and rear yards between parcels zoned O, C or I: Large maturing deciduous trees generally spaced thirty-five feet on center with evergreen shrub hedgerows planted the length of adjacent parking areas that grow to or are maintained at a 3-4 foot height maximum.

(4) *Perimeter landscaping C (option I):*

- a. At least one large deciduous tree for each 50 lineal feet and at least one evergreen tree for each 30 lineal feet;
- b. At least one small deciduous tree for each 30 lineal feet;
- c. At least one medium shrub for each ten lineal feet; and
- d. Low shrubs and ground cover used appropriately in tree and/or shrub beds reasonably dispersed throughout.

(5) *Perimeter landscaping C (option II):*

- a. ~~A minimum four-foot-high undulating berm; and~~ Adjacent to a public road: An average three-foot high undulating berm with maximum side slopes of 3:1 designed to provide topographical interest yet maintain reasonable visibility into parking areas; and installation of Perimeter Landscape B. If overhead utility lines conflict with large maturing deciduous trees, planting areas or islands shall be installed adjacent to the setback with a minimum size of 300 square feet per required tree. In this case, each tree may also be credited towards the surface parking lot tree requirements.
- b. ~~Perimeter landscaping B. In buffers: A minimum four-foot-high berm with 3:1 maximum side slopes and Perimeter Landscape B. Multiply Perimeter Landscape B as required for buffers fifty feet or wider.~~

(6) *Perimeter landscaping D:*

- a. At least one large deciduous tree for each 50 lineal feet and at least one evergreen tree for each 30 lineal feet;
- b. At least one small deciduous tree for every 50 lineal feet;
- c. At least one medium shrub for every five lineal feet; or continuous hedge forms for the entire lot width or a continuous picket fence for the entire lot width, no shorter than three feet and no taller than four feet, painted white or whitewashed; and
- d. Low ground cover interspersed into tree and/or shrub beds ~~reasonably dispersed throughout.~~

(7) *Perimeter landscaping E:*

- a. At least one large deciduous tree for each 50 lineal feet and at least one evergreen tree for each 30 lineal feet;

- b. At least one small deciduous tree for every 30 lineal feet;
- c. At least one medium shrub for every five lineal feet; or continuous hedge forms for the entire lot width, no shorter than three feet at planting; or a continuous decorative wood or pvc fence, wrought-iron fence or brick wall for the entire lot width, no shorter than three feet and no taller than four feet; and
- d. Low shrubs and ground cover interspersed into tree and/or shrub beds ~~reasonably dispersed throughout.~~

(8) *Perimeter landscaping F:*

- a. At least one large deciduous tree for each 50 lineal feet and at least one evergreen tree for each 30 lineal feet;
- b. At least one small deciduous tree for every 30 lineal feet;
- c. Continuous hedge forms for the entire lot width, no shorter than three feet at planting; or a continuous ~~wood screening fence or masonry screening wall constructed of the same materials used in the buildings for the entire lot width,~~ no shorter than five feet and no taller than six feet; and
- d. Low shrubs and ground cover interspersed into tree and/or shrub beds ~~reasonably dispersed throughout.~~

(9) *Perimeter landscaping G:*

- a. At least one large deciduous tree for each 50 lineal feet;
- b. Continuous evergreen hedge forms that grow to or are maintained at a 3-4 foot height maximum planted along the entire length of parking lot areas, ~~no shorter than three feet at planting, for the entire parking lot width;~~ and
- c. Low shrubs and ground cover interspersed into tree and/or shrub beds ~~reasonably dispersed throughout.~~

(10) *Perimeter landscaping H:*

- a. At least one large deciduous tree for each 50 lineal feet.

(11) *Perimeter landscaping I:*

- a. At least one and one-half (1.5) times perimeter landscaping C (option I).

(12) Perimeter landscaping J:

- a. One large deciduous tree generally spaced at 35 feet on center, and

b. A double staggered hedgerow of evergreen medium shrubs for the full length of all parking areas, and

c. Low shrubs and/or groundcovers in planting beds at entrances.

During plan review, the director of planning may consider, at his option, other planting alternatives to Perimeter landscaping J based upon reduced averaged setbacks, utility conflicts, and/or signage visibility.

(h) *Street trees:* During the subdivision process, required street trees shall be shown on a plan showing the proposed tree locations, species and caliper, and submitted to and approved by the director of planning and VDOT. The street tree plan shall be submitted as a part of the construction plans.

- (1) Unless otherwise required, trees at a maximum spacing of 40 feet on center shall be located no greater than five feet outside of the right-of-way in an easement granted to the homeowners association or within the right-of-way if approved by VDOT. For single trunk trees the minimum allowable caliper measured four feet above grade shall be two and one half inches. Multistem trees shall have a minimum of three canes and be a minimum of ten feet in height. Species selected for planting shall be suitable for growing in this vegetative zone and shall be drought tolerant.
- (2) The subdivider or developer shall at their expense install all required street trees identified on the approved plans prior to recordation or surety shall be provided in the amount approved by the director of planning and in a form accepted by the county attorney's office, sufficient to guarantee installation. Any surety shall be held by the director of planning. Installation within a subdivision shall be completed prior to state acceptance of the subdivision's streets.
- (3) Required street trees shall be guaranteed by the installer for a period of not less than one year. Replacement of dead trees is required in accordance with section 19-518(d). Maintenance responsibilities of the required street trees within a subdivision shall be specified on the final check plan and record plat to be the responsibility of the homeowners association. Street trees shall not be removed during or after residences are constructed. Trees removed shall be replaced with a like species and in a size comparable to the original planting.

(i) *Landscaping of Best Management Practices (BMP):* Any BMP required for water quantity or quality control and that is located in public view shall be landscaped and otherwise improved so that the facilities are visually enhanced. These improvements shall include landscaping of sloped edges above full water elevation, and shall include any of the following as required by the director of planning: fountains (wet ponds), curvilinear pond forms, varied contouring of land forms (dry ponds), or other enhancement method as deemed appropriate. Any fencing used shall be of an ornamental design. At the time of site plan review, a plan depicting these requirements shall be submitted for review and approval. Under no circumstances shall requirements for landscaping interfere with any County requirements

for the basin design, access, or maintenance.

Sec. 19-519. Landscaping standards for surface parking areas.

(a) *Quantity:* Any paved parking area shall have at least ~~20~~ 30 square feet of interior landscaping for each space. Each required landscaped area ~~for large deciduous trees shall contain a minimum of 400~~ 250 square feet and have a minimum dimension of at least ~~nine~~ 15 feet at the location of a tree. Each required landscaped area for small deciduous trees shall contain a minimum of 150 square feet and have a minimum dimension of at least nine feet at the location of a tree. Continuous planting islands for large or small deciduous trees of at least 600 square feet in size shall have a minimum dimension of nine feet. A maximum of ten percent of the required area may be in smaller areas if approved through site or schematic plan review.

(b) *Materials:* The primary landscaping material used in parking areas shall be trees that provide shade or are capable of providing shade at maturity. Except as required by section 19-608(b), at least fifty percent of required trees in the parking areas shall be large maturing shade trees ~~each required landscaped area shall include at least one small tree, as outlined in this subdivision.~~ The total number of trees shall not be less than one for each 200 square feet, or fraction thereof, of required interior landscaped area. The remaining area shall be landscaped with shrubs and other vegetative material as may be approved at the time of site plan approval compatible with the tree landscaping. Under no circumstances shall plantings block the sight line of motorists at driveway intersections.

(c) *Design:* Landscaped areas shall be reasonably dispersed, located so as to divide the expanse of paving. The County encourages the use of continuous planting islands wherever possible to minimize individual planting islands. Continuous planting islands shall be used to ~~Landscaped areas shall also define~~ entrance driveways, and within parking areas, walkways. No areas within the required setbacks shall be included as part of the required parking area or landscaping area. Landscaping in Best Management Practice bio-retention islands located within parking areas shall count towards required parking lot landscaping.

Subdivision IV. Buffers and Screening

Secs. 19-520. Purpose and intent.

(a) Buffers shall be designed to provide a horizontal distance and open space between certain uses; preserve vegetation; provide transition and separation; reduce noise and glare; and/or maintain privacy. Buffers shall provide intermittent visual separation between uses.

(b) Screening shall provide a vertical barrier and shall be designed to block visual or noise impact. When unrelated activities are located adjacent to one another, buffers and screening as required herein shall be used to ensure compatibility between adjacent uses.

Secs. 19-521. General provisions for buffers and screening.

(a) In addition to the buffers required herein, the board of supervisors; planning commission by modifications to development standards and requirements only; or board of zoning appeals may require buffers at the time of their final decision on applications before them. Buffers shall be of such length, width and type as will effectively and appropriately buffer one use from another use where such uses are deemed to be incompatible, whether such uses are within the same districts or in different districts. Such buffers shall not be used for any purpose other than as permitted herein, or as permitted by the action of the board of supervisors, planning commission or board of zoning appeals.

(b) Existing mature vegetation located within required buffers shall be maintained unless removal is approved during schematic, subdivision or site plan review. Further, preserved vegetation may be substituted for required landscaping materials if approved during schematic, subdivision or site plan review.

(c) Buffers shall be provided on the lot or parcel being developed with all buffers complying with pursuant to the matrix contained in section 19-523. On zoning lots with split zoning, any A, R, R-TH, or R-MF zoned portion of the land within the zoning lot may be used for the purpose of part or all of the required buffer when designated as a buffer in a perpetual easement as measured from the Zoning District line. The perpetual buffer easement shall only be allowed if approved during schematic, subdivision, or site plan review, and shall be recorded as such with the County Clerk and included with the electronic submission of plans to the County prior to issuance of the land disturbance permit. If a split zoned lot is created through the resubdivision of residentially platted property, final plats shall be re-recorded that reflect the changes to the residential lots.

~~(d) When the development is to contain more than one use or group of uses, the more stringent requirements of the matrix shall apply.~~

~~(e)~~(d) Except as allowed by Sec. 19-521(c), ~~B~~buffers shall be required at the outer boundaries of a lot along the rear and/or side property lines and shall be provided except where ~~driveways or other openings~~ may be required, as approved at the time of site plan approval.

~~(f)~~(e) Unless otherwise specified, buffers shall be inclusive of required yards.

~~(g)~~(f) When required, screening shall provide complete visual separation of outside storage, loading docks, overhead doors, service areas, trash collection storage areas, vehicle storage yards and similar uses.

~~(h)~~(g) The only uses permitted by right in buffers shall be landscaping and screening as permitted herein; however, signs; security fencing; utilities which run generally perpendicular through the buffer; pedestrian walkways; portions of stormwater management basins that do not disturb existing topography or vegetation within the buffer, and Best Management Practice bio-retention basins in buffers without existing vegetation. ~~or s~~Similar uses may be permitted through subdivision, site or schematic plan review, provided that the uses are consistent with the purposes stated in § 19-520 are maintained.

(i)(h) Except for buffers required by the board of supervisors as a condition of zoning or by the board of zoning appeals, the requirements for buffers and screening may be waived and/or modified by the planning commission during schematic or site plan review and approval under any of the following conditions:

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Secs. 19-522. Buffer and screening requirements.

(a) *Buffers:* Buffers shall be provided as shown on the buffer width matrix in section 19-523. Landscaping shall be accomplished within required buffers as follows:

- (1) A buffer less than 50 feet shall consist of an unbroken strip of open space and shall be planted in accordance with perimeter landscaping C.
- (2) A 50-foot buffer shall consist of an unbroken strip of open space and shall be planted at one and five-tenths times the density of perimeter landscaping C:
- (3) A 75-foot buffer shall consist of an unbroken strip of open space and shall be planted at two times the density of perimeter landscaping C.
- (4) A 100-foot buffer shall consist of an unbroken strip of open space and shall be planted at two and five-tenths times the density of perimeter landscaping C.

For all buffers, up to fifty percent of the required small maturing deciduous trees may be changed to evergreen trees.

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Secs. 19-523. Buffer width matrix.

The required width of buffers shall be determined from the following matrix. The left column of the matrix represents the zoning use of the zoning lot on which the buffer must be provided and the top column of the matrix represents the zoning district use of property contiguous to the zoning lot. The interior numbers in the matrix represent the width in feet of the required buffer on the zoning lot: However, whenever the primary use on a parcel zoned O, C or I is a single family residential subdivision, adjacent parcels shall be required to apply the buffer matrix below as though the property is residentially zoned.

BUFFER WIDTH MATRIX

		R-7/88
		R-TH/R-MF
		MH Districts
A*	+	+
R-7/88	+	+
R-TH/R-MF	+	50**
MH Districts	+	50**
O-1	+	40
O-2	+	50
C-1	+	40
C-2	+	50
C-3	+	75
C-4	+	75
C-5	+	100
I-1	+	50
I-2	+	75
I-3	+	100

*Note: Buffers are only required adjacent to ~~vacant~~ property zoned "A" ~~shall be determined based when the property's is vacant and its designation on the comprehensive plan is for residential uses.~~

**Note: Where property zoned R-7 through R-88 is adjacent to property zoned R-TH, R-MF, or MH, a buffer shall be required on the R-TH, R-MF, or MH property. No buffers are necessary between any single-family residential districts unless required by the board of supervisors, planning commission (modification to development standards and requirements only) or board of zoning appeals.

Sec. 19-582. Exceptional development standards in the Jefferson Davis Highway Corridor.

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(b) *Landscaping*: No interior parking lot or perimeter landscaping shall be required except along public roads, as required by Sec. 19-583 and 19-584. ~~Perimeter landscaping H shall be installed in all front and corner side setbacks, except when parking or driveways are located at the ultimate right-of-way line.~~ Tree preservation, in accordance with sections 19-518(d) and 19-521(b) shall be required, except where parking or driveways are located within 10 feet of at the ultimate right-of-way line.

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Sec. 19-583. Setback requirements for O, C and I-1 Districts within the Jefferson Davis Highway Corridor.

(a) The minimum setback for all buildings, drives and parking areas in O, C and I-1 districts shall be as follows:

(1) Setbacks along public roads, excluding limited access roads:

- a. *Buildings*: The minimum setback shall be 25 feet. Perimeter landscaping H shall be installed in all front and corner side setbacks except when parking or driveways are located less than 10 feet from the ultimate right-of-way line.
- b. *Drives and parking*: ~~There shall be no minimum setback f~~For parking areas for automobiles, light trucks, vans, pickup trucks and motorcycles and for boats, trailers and RV's less than 25 feet in length, a minimum 10 feet setback shall be maintained and planted with Perimeter Landscape H. Alternatively, a setback of 5 feet may be used with small maturing trees planted generally at 35 feet on center. This setback may be eliminated entirely if the site is designed to provide for tree islands spaced every 4 parking spaces adjacent to the public right of way with a minimum width of 7 feet and planted with small maturing trees. The minimum setback for parking and storage of other vehicles shall be 50 feet with driveways accessing these parking and storage areas having a minimum setback of 10 feet with Perimeter Landscape H.

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Sec. 19-584. Setback requirements for I-2 and I-3 Districts within the Jefferson Davis Highway Corridor.

(a) *Jefferson Davis Highway Corridor*: The minimum setbacks for all buildings, drives and parking areas in I-2 and I-3 districts shall be as follows:

(1) Setbacks along public roads, excluding limited access roads:

- a. *Buildings*: The minimum setback shall be 60 feet.
- b. *Drives and parking*: ~~There shall be no minimum setback for parking areas f~~For parking areas for automobiles, light trucks, vans, pickup trucks and motorcycles and for boats, trailers and RV's less than 25 feet in length, a 10 feet setback shall be maintained and planted with Perimeter Landscape H. Alternatively, a setback of 5 feet may be used with small maturing trees planted generally at 35 feet on center. This setback may be eliminated entirely if the site is designed to provide for tree islands spaced every 4 parking spaces adjacent to the public right of way with a minimum width of 7 feet and planted with small maturing trees. The minimum setback for

parking and storage of other vehicles shall be 50 feet with driveways accessing these parking and storage areas having a minimum setback of 10 feet with Perimeter Landscape H.

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Sec. 19-593. Yard requirements for office, business and industrial districts within emerging growth areas.

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(d) *Setbacks along limited access roads and rear yards:* The minimum rear yard setback for buildings, drives and parking areas and any yard adjacent to a limited access road shall be 40 feet with the installation of perimeter landscaping A C. However, within I-2 and I-3 districts, when adjacent to I-2 or I-3 districts, perimeter landscaping within rear yards shall not be required. One foot shall be added to each rear yard for each one foot that the building height adjacent thereto exceeds 45 feet.

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Sec. 19-601. Yard requirements for office, business and industrial districts within post-development areas.

Except when lesser setbacks are permitted by section 19-582 or 19-584, the yard requirements specified in this section shall apply to any zoning lot or parcel.

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- (3) *Front and corner side yards:* The front and corner side yard setback for buildings shall be a minimum of 30 feet from the proposed rights-of-way other than major arterials and limited access roads; except that in an I-2 District, building setbacks shall be increased to 60 feet and in an I-3 District to 90 feet. The setback for drives and parking areas shall be a minimum of 15 feet from existing or proposed rights-of-way. Within these setbacks, landscaping shall be provided in accordance with perimeter landscaping AJ.

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Sec. 19-602. Permitted variations in yard requirements.

The required minimum yards for any zoning lot or parcel, except those located in an I-2 or I-3 District or adjacent to limited access roads, may be reduced with the provision of a change in additional landscaping and/or if adjacent property is zoned for a similar use, as follows:

- (1) *Setbacks along major arterials:* The required setback for buildings, drives and parking areas along major arterials may be reduced to 25 feet with the installation of perimeter landscaping ~~€~~ J.
 - (2) *Front and corner side yards:* The required front and corner side yard setback for buildings along public rights-of-way other than major arterials may be reduced to 25 feet with the installation of perimeter landscaping ~~B~~ J.
- (2) *That this ordinance shall become effective immediately upon adoption.*